

CLAIMS

What is claimed:

1. An apparatus for a pivot assembly for hard disk drive use comprising:
 - a pivot assembly for hard disk drive use in which ball bearings have been mated with both ends of a shaft; and
 - an inner wall part, at the outer circumference of these ball bearings, has mated a sleeve disposed between both of said ball bearings,
 - wherein sleeve is fixed by means of laser welding to the outer rings of said ball bearings.
2. The apparatus according to claim 1, wherein on the outer circumference of said sleeve a concave part that reaches up to the vicinity of the outer circumference of said outer ring is formed, and the bottom wall of this concave part is laser welded with the outer circumference of said outer ring.
3. The apparatus according to claim 2, wherein the concave part is a groove that extends along the entire circumference of said sleeve.
4. The apparatus according to claim 2, wherein the concave part is holes provided separated from each other in the circumferential direction of said sleeve.
5. The apparatus according to claim 1 wherein on the outer circumference of said sleeve, a hole linked to the outer circumference of said outer ring is formed, and the edge part of this hole is laser welded to the outer circumference of said outer ring.
6. The apparatus according to claim 5 wherein said laser welding is carried out at places separated in the axial direction from the rolling groove of said outer ring.